Form 3160-3 (August 2007)

### UNITED STATES

FORM	APPR	OVEI
OMB N	lo. 1004	1-0137
Expires	July 31	2010

5.	Lease Serial No.	
UTU	J-01193	

BUREAU OF LAND MAN			UTU-01193		
APPLICATION FOR PERMIT TO	6. If Indian, Alloted Ute Tribe	or Tribe Name			
la. Type of work: DRILL REENTI	ER		7. If Unit or CA Agr 891008900A	eement, Name and No.	
lb. Type of Well: Oil Well Gas Well Other	8. Lease Name and NBU 921-13B2S	Well No.			
Name of Operator     Kerr-McGee Oil & Gas Onshore, LP				47-40429	
3a. Address	3b. Phone No. (include area code)		10. Field and Pool, or	• •	
P.O. Box 173779, Denver, CO 80217-3779	720.929.6226	· · · · · · · · · · · · · · · · · · ·	Natural Buttes Fiel		
4. Location of Well (Report location clearly and in accordance with an			l .	Blk. and Survey or Area	
At surface NENW 655' FNL & 1960' FWL LAT 40.041	•	D 27)	Sec. 13, T 9S, R 2	11E	
At proposed prod. zone NWNE 488' FNL & 2541' FEL, Sec	. 13, T 9S, R 21E				
14. Distance in miles and direction from nearest town or post office*  18.8 miles northeast of Ouray, Utah			12. County or Parish Uintah	13. State UT	
15. Distance from proposed* location to nearest 488'	16. No. of acres in lease	17. Spacia	ng Unit dedicated to this	well	
property or lease line, ft. (Also to nearest drig. unit line, if any)	1920	Unit We	#		
18. Distance from proposed location* to nearest well, drilling, completed,	19. Proposed Depth	20, BLM/	LM/BIA Bond No. on file		
applied for, on this lease, ft.	10,268' WYB00		)0291		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will	start*	23. Estimated duration	23. Estimated duration	
4883' GL	10 days		10 days		
	24. Attachments				
The following, completed in accordance with the requirements of Onsho	re Oil and Gas Order No.1, must b	e attached to th	nis form:		
1. Well plat certified by a registered surveyor.			ons unless covered by ar	n existing bond on file (se	
2. A Drilling Plan.	Item 20 abov	•			
<ol> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the 5. Operator cert 6. Such other s BLM.		Formation and/or plans a	s may be required by the	
25. Signature	Name (Printed/Typed)			Date	
ZJ. Signature	Kevin McIntyre			11/23/2008	
Title Regulatory Analyst					
Approved by Signatura	Name (Printed/Typed)	Name (Printed/Typed)		Date	
Doddy	BRADLE	BRADLEY G. HILL 12-08-08			
Title W	Office NVIRONMENT				
Application approval does not warrant or certify that the applicant hole conduct operations thereon.  Conditions of approval, if any, are attached.	ls legal or equitable title to those r	ights in the su	bject lease which would	entitle the applicant to	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as	rime for any person knowingly ar to any matter within its jurisdiction	d willfully to 1	make to any department	or agency of the United	
(Continued on page 2)			*(Ins	tructions on page 2	
<del>-</del> - ·	Federal Approv		·	<del>-</del> -	

BHL

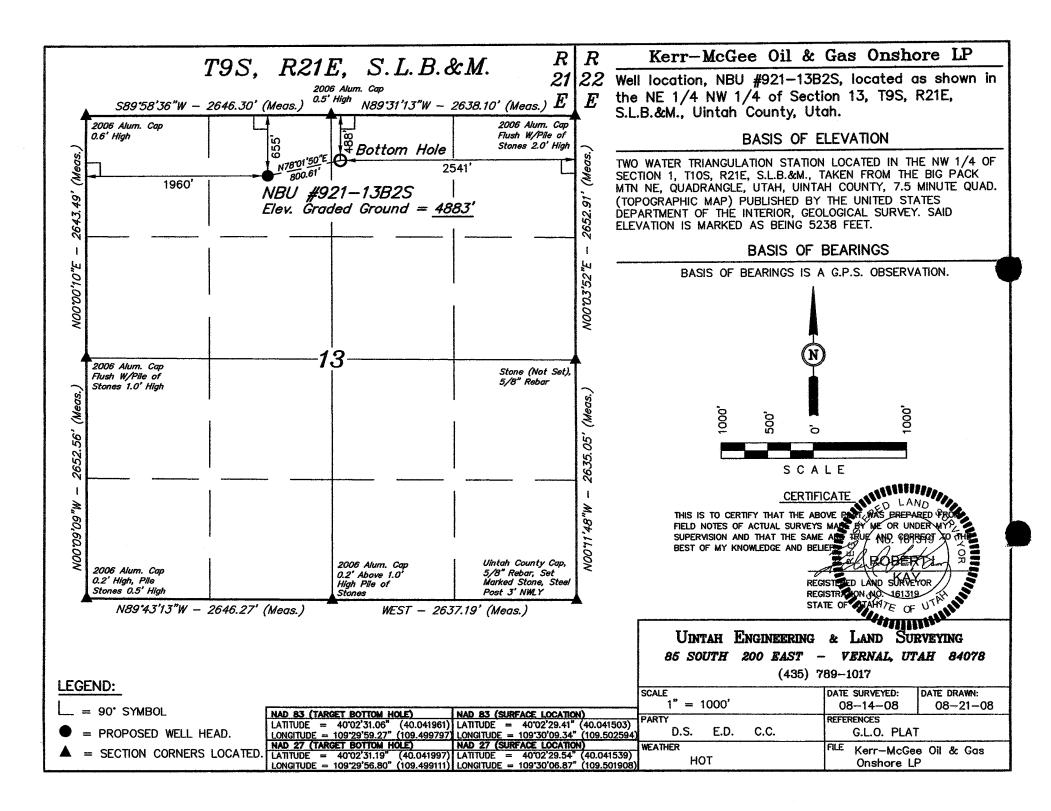
RECEIVED

DEC 0 1 2008

DIV. OF OIL, GAS & MINING

Surf 627808x 44332274 40.041492 -109. 501872

628052X 44332814 40.641942 -109. 499001



### McGee

December 4, 2008

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11 NBU 921-13B2S T9S-R21E Section 13: NWNE NENW 655' FNL, 1960' FWL (surface) NWNE 488' FNL, 2541' FEL (bottom hole)

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 921-13B2S is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Lynn Padgett

Staff Landman

# NBU 921-13B2S Twin to CIGE #274 NENW Sec. 13, T9S,R21E UINTAH COUNTY, UTAH UTU-01193

### **ONSHORE ORDER NO. 1**

### DRILLING PROGRAM

### 1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1822'
Bird's Nest	2149'
Mahogany	2633'
Wasatch	5151'
Mesaverde	7963'
MVU2	8855'
MVL1	9386'
TVD	10,100'
TD	10,268'

### 2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	Depth
	Green River	1822'
	Bird's Nest	2149'
	Mahogany	2633'
Gas	Wasatch	5151'
Gas	Mesaverde	7963'
Gas	MVU2	8855'
Gas	MVL1	9386'
Water	N/A	
Other Minerals	N/A	

### 3. Pressure Control Equipment (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

### 4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP. See attached drilling diagram.

### 5. <u>Drilling Fluids Program</u>:

Please see the Natural Buttes Unit SOP.

### 6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

### 7. <u>Abnormal Conditions</u>:

Maximum anticipated bottomhole pressure calculated at 10,268' TD, approximately equals 6366 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4107 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

### 9. Variances:

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

### Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the

surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi.

The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

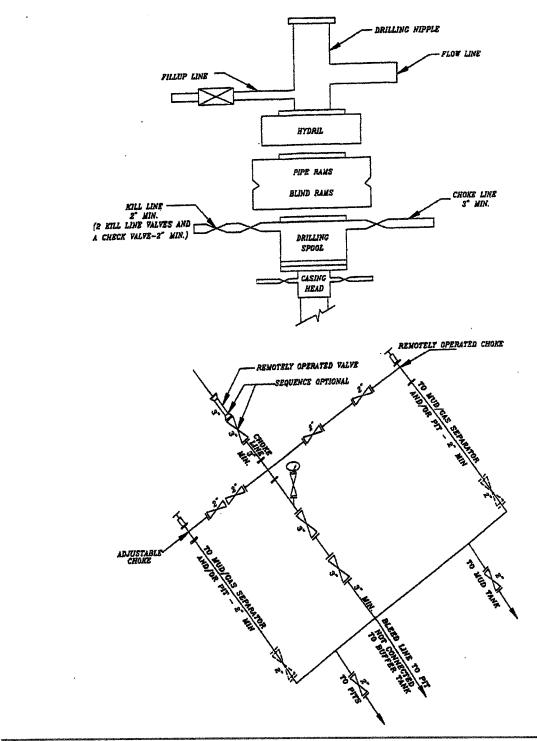
### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

### 10. Other Information:

Please see Natural Buttes Unit SOP.

### **EXHIBIT A**



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

### NBU 921-13B2S Twin to CIGE #274 NENW Sec. 13 ,T9S,R21E UINTAH COUNTY, UTAH UTU-01193

### **ONSHORE ORDER NO. 1**

### MULTI-POINT SURFACE USE & OPERATIONS PLAN

### 1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

### 2. Planned Access Roads:

No new access road is proposed, as this is a twin location to CIGE #274. Refer to Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

### 4. Location of Existing & Proposed Facilities:

Please see the Natural Buttes Unit SOP.

Refer to Topo Map D for the location of the proposed pipelines.

A right-of-way is required for the pipeline. The pipeline is approximately 4,022' in length and 30' in width. A 4" surface steel pipeline will be constructed utilizing existing disturbance where possible. The pipeline will be butt-welded together and pulled into place with a rubber tired tractor.

### Variances to Best Management Practices (BMPs) Requested:

Approximately 4,022' of 4" steel pipeline will be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

#### 5. Location and Type of Water Supply:

Please see the Natural Buttes SOP.

#### 6. Source of Construction Materials:

Please see the Natural Buttes SOP.

### 7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (Request is in lieu of filing Form 3160-5, after initial production).

### 8. Ancillary Facilities:

Please see the Natural Buttes SOP.

### 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

### 10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

Upon reclamation of the pit the following seed mixture will be used. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for **drilled** seed are:

Crested Wheatgrass 12 lbs.

Operator shall call the BLM for the seed mixture when final reclamation occurs.

### 11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe P.O. Box 70 Fort Duchesne, Utah 84026 (435) 722-5141

The mineral ownership is listed below:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

### 12. Stipulations/Notices/Mitigation:

There are no stipulations or notices for this location.

### 13. Other Information:

A Class III archaeological survey and a paleontological survey have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

### 14. Lessee's or Operator's Representative & Certification:

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6226 Randy Bayne Drilling Manager Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, UT 84078 (435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

King.	12/3/2008
Kevin McIntyre	Date

### Kerr-McGee Oil & Gas Onshore LP NBU #921-13CT, #921-13B2S, #921-13G2S & #921-13D4S SECTION 13, T9S, R21E, S.L.B.&M.

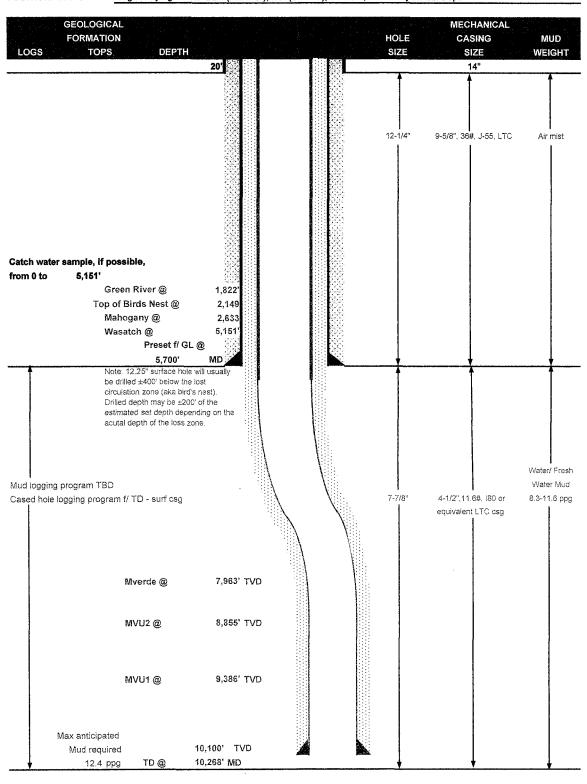
PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88: EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST: TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST: TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 1.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; AND PROCEED IN A NORTHWESTERLY DIRECTION TURN LEFT APPROXIMATELY 1.1 MILES TO THE JUNCTIO OF THIS ROAD AND AN EXISTING ACCESS TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE EXISTING #274 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 50.1 MILES.



### KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	(ERR-McGEE OIL & GAS ONSH	ORE LP	DATE N	lovember 23, 2008	
WELL NAME	NBU 921-13B2S		TD 1	0,100' TVD	10,268' MD
FIELD Natural Butte	s COUNTY Uir	ntah STATE Uta	h ELE\	ATION 4,883'	GL KB 4,898'
SURFACE LOCATION	NENW 655' FNL & 1960' FWL	, Sec. 13, T 9S R 21E			
	Latitude: 40.041539	Longitude: -109.50	1908	NAD 27	
BTM HOLE LOCATION	NWNE 488' FNL & 2541' FEL	, Sec. 13, T 9S R 21E			
	Latitude: 40.041997	Longitude: -109.49	9111	NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (M	inerals), BIA (Surface),	UDOGM, Tri-	County Health Dept.	



#### **CASING PROGRAM**

							I	DESIGN FACT	ORS
	SIZE	INT	ERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0	-40'						``
			et e				3520	. 2020	453000
SURFACE	9-5/8"	0	to 5700	36.00	J-55	LTC	0.81	0.76	2.81
	1		<b>3</b>			'	7780	6350	201000
PRODUCTION	4-1/2"	0	to 10268	11.60	I-80	LTC	1.78	0.96	1.93
							]	1	
	ļ						<u> </u>	<u> </u>	

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.4 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 4107 psi CEMENT PROGRAM

	ı	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		1	+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
		j	+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surf	face, optic	n 2 will be	utilized	
Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite	360	35%	12.60	1.81
			+.25 pps Flocale + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
	Ì		+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTIO	N LEAD	4,648'	Premium Lite II + 3% KCI + 0.25 pps	450	40%	11.00	3,38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,620'	50/50 Poz/G + 10% salt + 2% gel	1380	40%	14.30	1.31
			+ 1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

### FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

### ADDITIONAL INFORMATION

ADDITION	AL INFORMATION						
	Test casing head to 750 psi a	after installing. Test surface casing to 1,500 psi prior to	drilling out.				
	BOPE: 11" 5M with one annu	ular and 2 rams. Test to 5,000 psi (annular to 2,500 ps	i) prior to drilling out. Record on chart recorder &				
	tour sheet. Function test ram	is on each trip. Maintain safety valve & inside BOP on	rig floor at all times. Kelly to be equipped with upper				
	& lower kelly valves.						
	Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.						
	Most rigs have PVT System i	for mud monitoring. If no PVT is available, visual monit	oring will be utilized.				
DRILLING	ENGINEER:		DATE:				
		Brad Laney					
DRILLING	SUPERINTENDENT:		DATE:				
		Randy Bayne					

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

### Kerr-McGee Oil & Gas Onshore LP

NBU #921-13CT, #921-13B2S, #921-13G2S & #921-13D4S LOCATED IN UINTAH COUNTY, UTAH

SECTION 13, T9S, R21E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO CENTER STAKE

CAMERA ANGLE: NORTHERLY

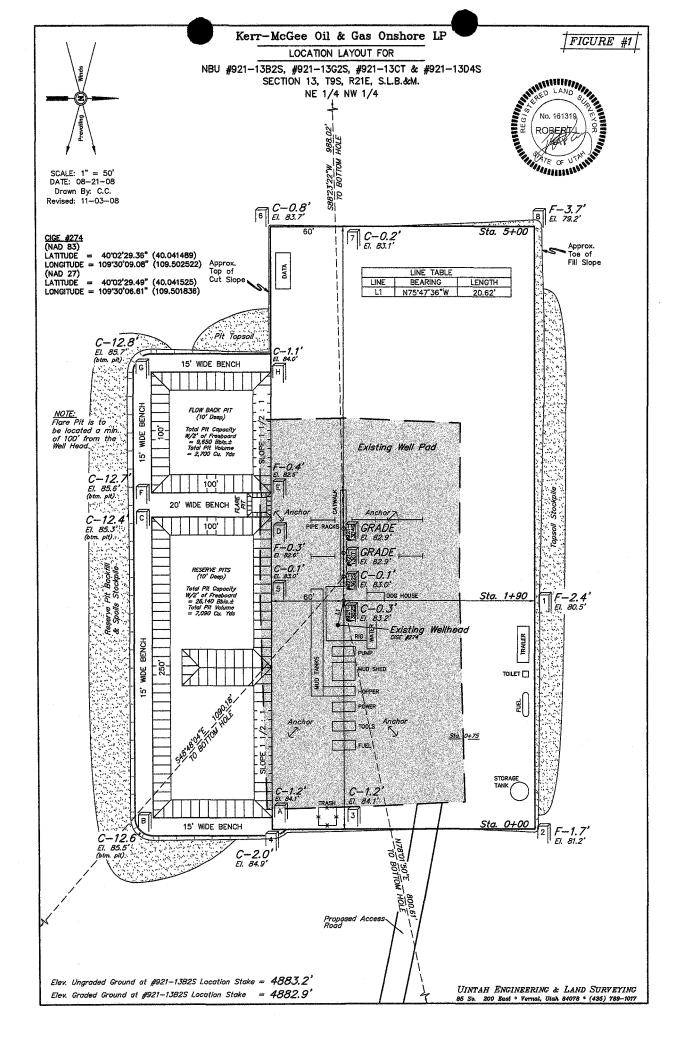


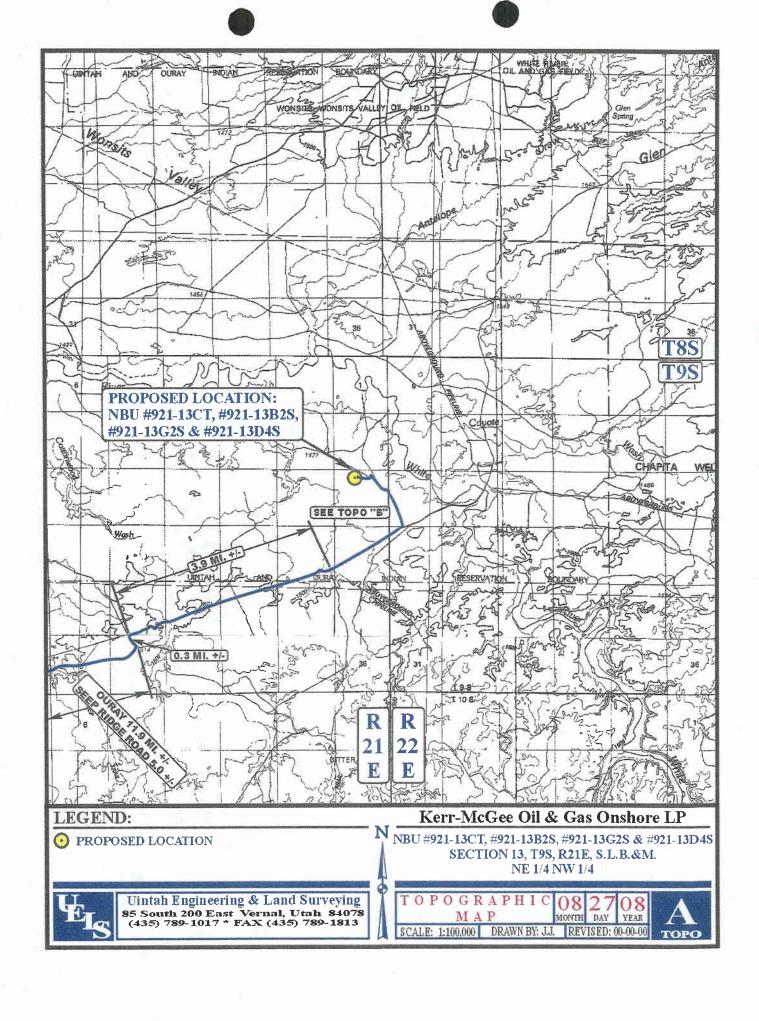
PHOTO: VIEW OF EXISTING ACCESS

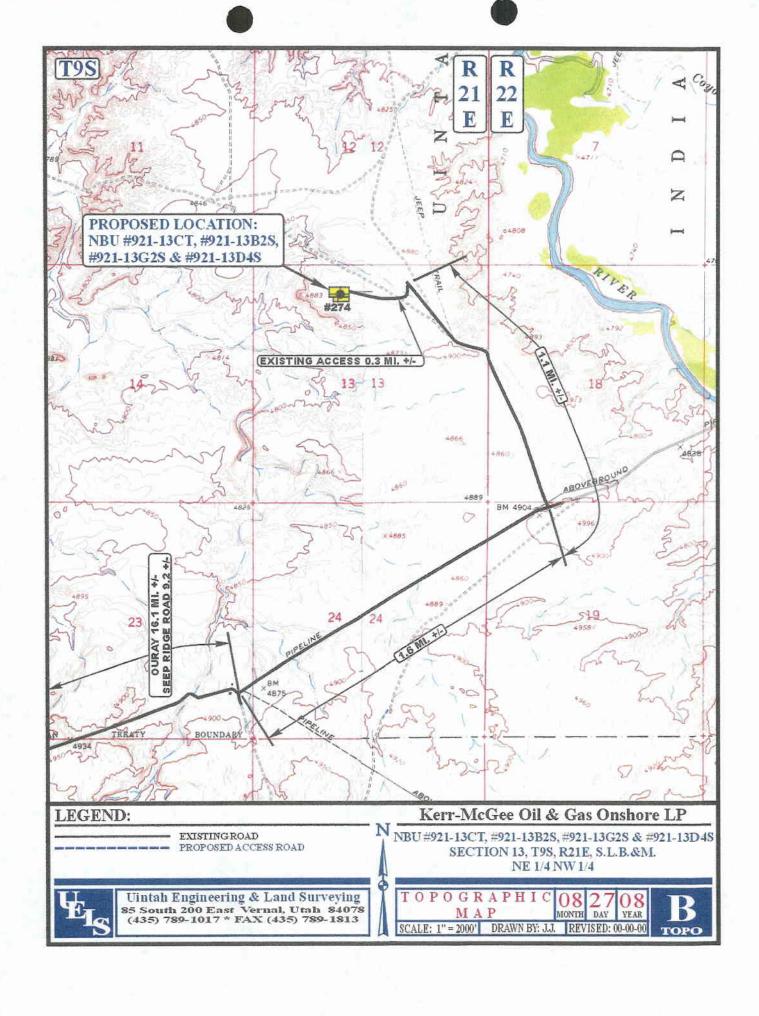
CAMERA ANGLE: SOUTHWESTERLY

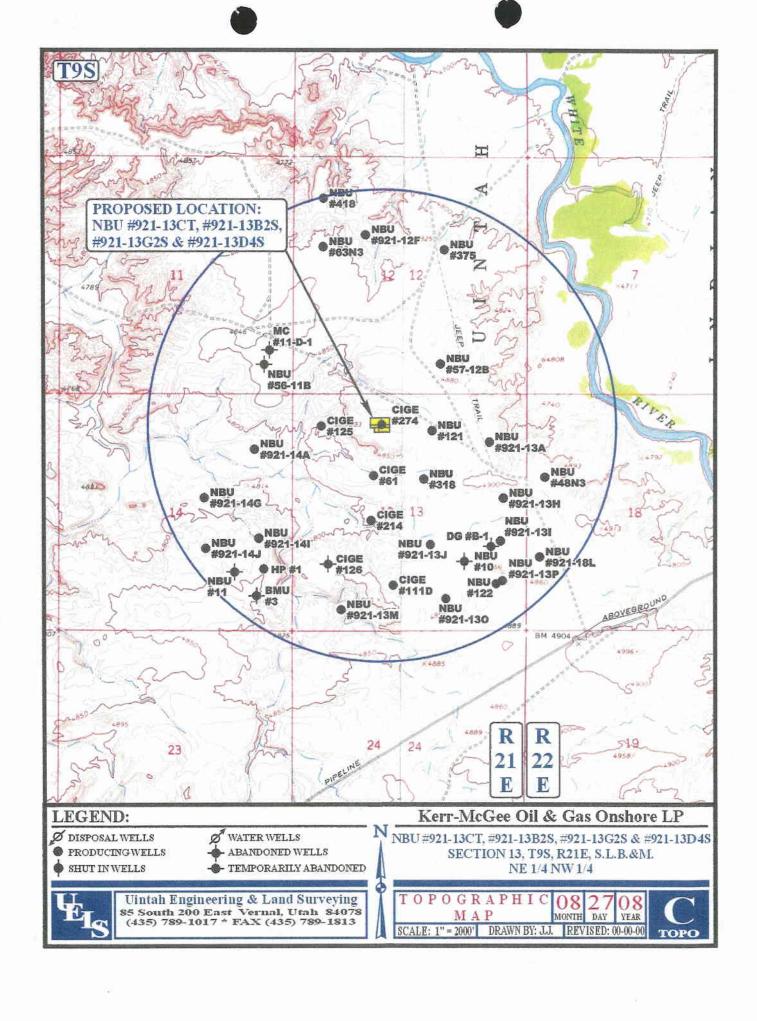


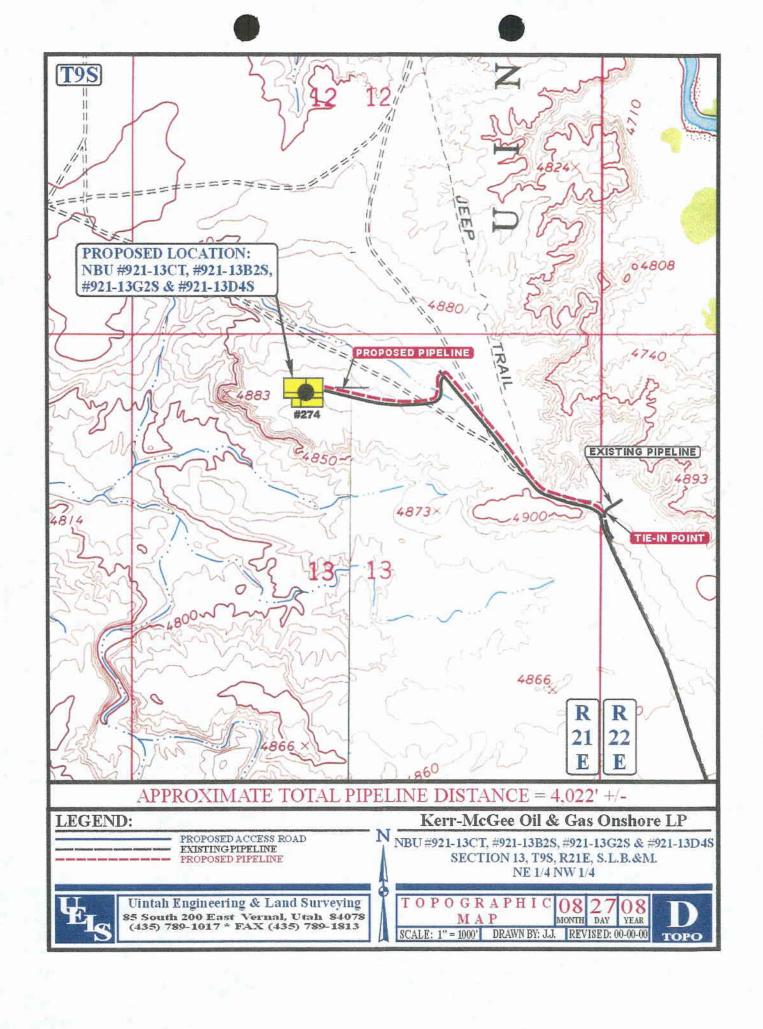
LOCATION PHOTOS		08 MOINTH	27 DAY	08 YEAR	PHOT
TAKEN BY: D.S.	DRAWN BY: J	J. REV	ISED: (	00-00-00	













Project Sit

Project: Uintah County, UT NAD27 Site: NBU 921-13C Pad

Well: NBU 921-13B2S Wellbore: OH Design: Plan #1

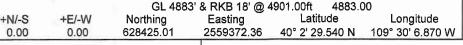


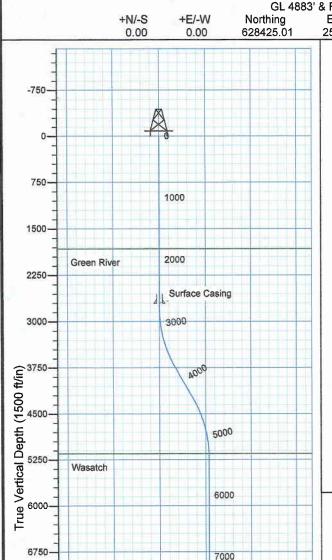
Azimuths to True North
Magnetic North: 11.40°

Magnetic Field
Strength: 52637.5snT
Dip Angle: 65.97°
Date: 11/1/2008

Model: IGRF2005-10

### WELL DETAILS: NBU 921-13B2S





8000

9000

10000 -- 10268

NBU 921-13B2S PBHL

750

Vertical Section at 77.96° (1500 ft/in)

1500

2250

7500

8250

9000

9750

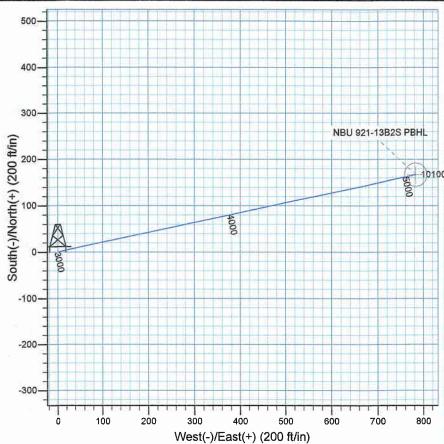
10500

11250

-1500

Mesaverde

-750



Plan: Plan #1 (NBU 921-13B2S/OH)

Created By: Julie Cruse Date: 2008-11-04

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Litch Central 4302

Zone: Utah Central 4302 Location: Sec 13 T9S R21E System Datum: Mean Sea Level Local North: True

### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1111-1111
2800.00	0.00	0,00 28	00.00	0.00	0.00	0.00	0.00	0.00	
3800.00	30.00	77.96 37	54.93	53,36	250,25	3,00	77.96	255.87	
4378.01	30.00	77,96 42	55.50	113.62	532.90	0.00	0.00	544.88	
5378.01	0.00	0.00 52	10.43	166.98	783.15	3.00	180.00	800.75	
10267.58	0.00	0,00101	00.00	166.98	783.15	0.00	0.00	800.75	NBU 921-13B2S PBHL



## Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27 NBU 921-13C Pad NBU 921-13B2S OH

Plan: Plan #1

### **Standard Planning Report**

04 November, 2008



### Planning Report

MD Reference:

EDM 2003.16 Multi User DB Database:

Kerr McGee Oil and Gas Onshore LP Company: Uintah County, UT NAD27

Project: Site: Well:

NBU 921-13C Pad NBU 921-13B2S

Wellbore: ОН Plan #1 Design:

Local Co-ordinate Reference:

TVD Reference:

Well NBU 921-13B2S GL 4883' & RKB 18' @ 4901.00ft

GL 4883' & RKB 18' @ 4901.00ft

North Reference:

Survey Calculation Method:

True

Minimum Curvature

Project

Uintah County, UT NAD27

Map System:

US State Plane 1927 (Exact solution)

NAD 1927 (NADCON CONUS)

Geo Datum: Map Zone:

Utah Central 4302

System Datum:

Mean Sea Level

Site

NBU 921-13C Pad, Sec 13 T9S R21E

Site Position:

Northing:

628,420.42 ft

Latitude:

40° 2' 29.490 N

From:

Lat/Long

Easting:

2,559,392.68 ft

Longitude:

**Position Uncertainty:** 

0.00 ft

Slot Radius:

Grid Convergence:

109° 30' 6,610 W

1.28°

Well

NBU 921-13B2S, 655' FNL 1960' FWL

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft Northing:

628,425.01 ft 2,559,372.36 ft Latitude: Longitude: 40° 2' 29.540 N

**Position Uncertainty** 

0.00 ft

Easting: Wellhead Elevation:

ft

**Ground Level:** 

109° 30' 6.870 W 4,883.00 ft

Wellbore

ОН

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2005-10

11/1/2008

11.40

65.98

52,637

Design

Plan #1

Audit Notes:

Version:

Phase:

0.00

PLAN

Tie On Depth:

0.00

**Vertical Section:** 

+N/-S

+E/-W (ft)

Direction

Depth From (TVD) (ft)

(ft) 0.00

0.00

(°) 77.96

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	30.00	77.96	3,754.93	53.36	250.25	3.00	3.00	0.00	77.96	
4,378.01	30.00	77.96	4,255.50	113.62	532.90	0.00	0.00	0.00	0.00	
5,378.01	0.00	0.00	5,210.43	166.98	783.15	3.00	-3.00	0.00	180.00	
10,267.58	0.00	0.00	10,100.00	166.98	783.15	0.00	0.00	0.00	0,00	NBU 921-13B2S PBF



Planning Report

Database: EDM 2003.16 Multi User DB

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27

 Project:
 Uintah County, UT N

 Site:
 NBU 921-13C Pad

 Well:
 NBU 921-13B2S

Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference: MD Reference: North Reference: Well NBU 921-13B2S

GL 4883' & RKB 18' @ 4901.00ft GL 4883' & RKB 18' @ 4901.00ft

True

Minimum Curvature

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(10)	( / 10012)	( / 10010)	( //0010)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
							0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
4 000 00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00						
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0,00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	1,822.00	0.00	0.00	0.00	0.00	0.00	0.00
1,822.00		0.00	1,022.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River	•								
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00		0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00					
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Cas			•						
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
,	2.00	77.06	2,899.95	0.55	2.56	2.62	3.00	3.00	0.00
2,900.00	3.00	77.96		2.18	10.23	10.46	3.00	3.00	0.00
3,000.00	6.00	77.96	2,999.63		23.00	23.51	3.00	3.00	0.00
3,100.00	9.00	77.96	3,098.77	4.90		41.74	3.00	3.00	0.00
3,200.00	12.00	77.96	3,197.08	8.70	40.82			3.00	
3,300.00	15.00	77,96	3,294.31	13.57	63.65	65.08	3.00		0.00
3,400.00	18.00	77.96	3,390.18	19.49	91.42	93.48	3.00	3.00	0.00
3,500.00	21.00	77.96	3,484.43	26.45	124.06	126.85	3.00	3.00	0.00
3,600.00	24.00	77.96	3,576.81	34.43	161.49	165.12	3.00	3.00	0.00
3,700.00	27.00	77.96	3,667.06	43,41	203.59	208.16	3.00	3.00	0.00
3,800.00	30.00	77.96	3,754.93	53.36	250.25	255.87	3.00	3.00	0.00
3,600.00	50.00								
3,900.00	30.00	77.96	3,841.53	63.78	299.15	305.87	0.00	0.00	0.00
4,000.00	30.00	77.96	3,928.13	74.21	348.05	355.87	0.00	0.00	0.00
4,100.00	30.00	77.96	4,014.74	84.64	396.95	405.87	0.00	0.00	0.00
4,200.00	30.00	77.96	4,101.34	95.06	445.85	455.87	0.00	0.00	0.00
4,300.00	30.00	77.96	4,187.94	105.49	494.75	505.87	0.00	0.00	0.00
						E44 00	0.00	0.00	0.00
4,378.01	30.00	77.96	4,255.50	113.62	532.90	544.88 EEE 76		-3.00	0.00
4,400.00	29.34	77.96	4,274.61	115.89	543.55	555.76	3.00		0.00
4,500.00	26,34	77.96	4,363.02	125.63	589.21	602.46	3.00	-3,00	0.00
4,600.00	23.34	77.96	4,453.76	134.39	630.29	644.46	3.00	-3.00	0.00
4,700.00	20.34	77.96	4,546.57	142.14	666.67	681.66	3.00	-3.00	0.00
4,800.00	17.34	77.96	4,641.20	148.88	698.25	713.95	3.00	-3.00	0.00



Planning Report

EDM 2003.16 Multi User DB

Company: Kerr McGee Oil and Gas Onshore LP

 Project:
 Uintah County, UT NAD27

 Site:
 NBU 921-13C Pad

 Well:
 NBU 921-13B2S

Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 921-13B2S

GL 4883' & RKB 18' @ 4901.00ft GL 4883' & RKB 18' @ 4901.00ft

True

Minimum Curvature

			1741.			\/4i!	Dawless	D., 23-1	Ť
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
4,900.00	14.34	77.96	4,737.40	154.57	724.95	741.24	3.00	-3.00	0.00
5,000.00	11.34	77.96	4,834.88	159.20	746.68	763.46	3.00	-3.00	0.00
5,100.00	8.34	77.96	4,933.40	162.77	763.39	780.55	3.00	-3.00	0.00
5,200.00	5.34	77.96	5,032.68	165.25	775.04	792.46	3.00	-3.00	0.00
5,300.00	2.34	77.96	5,132.44	166.64	781.59	799.16	3.00	-3.00	0.00
5,318.57	1.78	77.96	5,151.00	166.78	782.24	799.82	3.00	-3.00	0.00
Wasatch									
5,378.01	0.00	0.00	5,210.43	166.98	783.15	800.75	3.00	-3.00	0.00
5,400.00	0.00	0.00	5,232.42	166.98	783.15	800.75	0.00	0.00	0.00
5,500.00	0.00	0.00	5,332.42	166.98	783.15	800.75	0.00	0.00	0.00
5,600.00	0.00	0.00	5,432.42	166.98	783.15	800.75	0.00	0.00	0.00
5,700.00	0.00	0.00	5,532.42	166.98	783.15	800.75	0.00	0.00	0.00
5,800.00	0.00	0.00	5,632.42	166.98	783.15	800.75	0.00	0.00	0.00
					783.15	800.75	0.00	0.00	0.00
5,900.00 6,000.00	0.00 0.00	0.00 0.00	5,732.42 5,832.42	166.98 166.98	783.15 783.15	800.75 800.75	0.00	0.00	0.00
-					783.15	800.75	0.00	0.00	0.00
6,100.00	0.00	0.00	5,932.42	166.98					
6,200.00	0.00	0.00	6,032.42	166.98	783.15	800.75	0.00	0.00	0.00
6,300.00	0.00	0.00	6,132.42	166.98	783.15	800.75	0.00	0.00	0.00
6,400.00	0.00	0.00	6,232.42	166.98	783.15	800.75	0.00	0.00	0.00
6,500.00	0.00	0.00	6,332.42	166.98	783.15	800.75	0.00	0.00	0.00
6,600.00	0.00	0.00	6,432.42	166.98	783.15	800.75	0.00	0.00	0.00
6,700.00	0.00	0.00	6,532.42	166.98	783.15	800.75	0.00	0.00	0.00
6,800.00	0.00	0.00	6,632.42	166.98	783.15	800.75	0.00	0.00	0.00
6,900.00	0.00	0.00	6,732.42	166,98	783.15	800.75	0.00	0.00	0.00
7,000.00	0.00	0.00	6,832.42	166.98	783.15	800.75	0.00	0.00	0.00
7,100.00	0.00	0.00	6,932.42	166.98	783.15	800.75	0.00	0.00	0.00
•	0.00	0.00	7,032.42	166.98	783.15	800.75	0.00	0.00	0.00
7,200.00					783.15	800.75	0.00	0.00	0.00
7,300.00	0.00	0.00	7,132.42	166.98					
7,400.00	0.00	0.00	7,232.42	166.98	783.15	800.75	0.00	0.00	0.00
7,500.00	0.00	0.00	7,332.42	166.98	783.15	800.75	0.00	0.00	0.00
7,600.00	0.00	0.00	7,432.42	166.98	783.15	800.75	0.00	0.00	0.00
7,700.00	0.00	0.00	7,532.42	166.98	783.15	800,75	0.00	0.00	0.00
7,800.00	0.00	0.00	7,632.42	166.98	783.15	800.75	0.00	0.00	0.00
7,900.00	0.00	0.00	7,732.42	166.98	783.15	800.75	0.00	0.00	0.00
8,000.00	0.00	0.00	7,832.42	166.98	783,15	800.75	0.00	0.00	0.00
8,100.00	0.00	0.00	7,932,42	166.98	783.15	800.75	0.00	0.00	0.00
8,200.00	0.00	0.00	8,032.42	166.98	783.15	800.75	0.00	0.00	0.00
8,300.00	0.00	0.00	8,132.42	166.98	783.15	800.75	0.00	0.00	0.00
			8,232.42	166.98	783.15	800.75	0.00	0.00	0.00
8,400.00 8,500.00	0.00 0.00	0.00 0.00	8,232.42 8,332.42	166.98	783.15	800.75	0.00	0.00	0.00
			8,432.42	166.98	783.15	800.75	0.00	0.00	0.00
8,600.00	0.00	0.00				800.75	0.00	0.00	0.00
8,700.00	0.00	0.00	8,532.42	166.98	783.15				
8,800.00	0.00	0.00	8,632.42	166.98	783.15	800.75	0.00	0.00	0.00
8,900.00	0.00	0.00	8,732.42	166.98	783.15	800.75	0.00	0.00	0.00
9,000.00	0.00	0.00	8,832.42	166.98	783.15	800.75	0.00	0.00	0.00
9,022.58	0.00	0.00	8,855.00	166,98	783.15	800.75	0.00	0.00	0.00
Mesaverde									
9,100.00	0.00	0.00	8,932.42	166.98	783.15	800.75	0.00	0.00	0.00
9,200.00	0.00	0.00	9,032.42	166.98	783.15	800.75	0.00	0.00	0.00
9,300.00	0.00	0.00	9,132.42	166.98	783.15	800.75	0.00	0.00	0.00
9,400.00	0.00	0.00	9,232.42	166.98	783.15	800.75	0.00	0.00	0.00
					700 47	000 75	0.00	0.00	0.00
9,500.00	0.00	0.00	9,332.42	166.98	783.15	800.75 800.75	0.00 0.00	0.00 0.00	0.00 0.00



### Planning Report

Database:

EDM 2003.16 Multi User DB

Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT NAD27 NBU 921-13C Pad

Site: Well:

NBU 921-13B2S

Wellbore: Design:

ОН Plan #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Well NBU 921-13B2S

GL 4883' & RKB 18' @ 4901.00ft GL 4883' & RKB 18' @ 4901.00ft

True

Survey Calculation Method: Minimum Curvature

d Survey									
Measured Depth	Inclination	Azlmuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100 <del>ft</del> )	(°/100ft)
9,700.00	0.00	0.00	9,532.42	166.98	783.15	800.75	0.00	0.00	0.00
9,800.00	0.00	0.00	9,632.42	166.98	783.15	800.75	0.00	0.00	0.00
9,900.00	0.00	0.00	9,732.42	166.98	783.15	800.75	0.00	0.00	0.00
10,000.00	0.00	0.00	9,832.42	166.98	783.15	800.75	0.00	0.00	0.00
10,100,00	0.00	0.00	9,932.42	166.98	783.15	800.75	0.00	0.00	0.00
10,200.00	0.00	0.00	10,032.42	166.98	783.15	800.75	0.00	0.00	0.00
10,267.58	0.00	0.00	10,100.00	166.98	783.15	800.75	0.00	0.00	0.00

Targets									
Target Name - hlt/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 921-13B2S PBHL - plan hits target cen - Circle (radius 25.00		0.00	10,100.00	166.98	783.15	628,609.44	2,560,151.58	40° 2' 31.190 N	109° 29' 56,800 W

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (in)	Hole Diameter (in)	
	2,700.00	2,700.00	Surface Casing		9.625	13,500	

Formations							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Lithology	Dip (°)	Dip Direction (°)
	1,822.00	1,822.00	Green River			0.00	
	5,318.57	5,151.00	Wasatch			0.00	
	9,022.58	8,855.00	Mesaverde			0.00	

### Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Twin Wells, & Pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E)

> Ouray SE & Red Wash SW Topographic Quadrangles Uintah County, Utah

September 19, 2008

Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078

### INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by Bruce Pargeets of the Ute Indian Tribe and by Lynn Becker, EMD Land Division Manager of the Ute Indian Tribe's Energy and Minerals Department, a paleontological reconnaissance survey of Kerr McGee's proposed twin wells and pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E) was conducted by Simon Masters, Leith Tidwell, and Arica Scheetz on August 26, 2008. The survey was conducted under the Ute Indian Tribe Business License FY 2008, #A08-1308 and the accompanying Access Permit (effective 3/26/2008 through 9/30/2008). This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

### FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

- 1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);
- 2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579) and
- 3) The National Historic Preservation Act.16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- Class 1 Very Low. Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- Class 2 Low. Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial and colluvial deposits etc...)
- Class 3 Moderate or Unknown. Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
  - Class 3a Moderate Potential. The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.

- o Class 3b Unknown Potential. Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.
- Class 4 High. Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
  - Class 4a Outcrop areas with high potential are extensive (greater than two
    acres) and paleontological resources may be susceptible to adverse impacts from
    surface disturbing actions.
  - Class 4b Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- Class 5 Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
  - o Class 5a Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - O Class 5b Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

### LOCATION

Kerr McGee's proposed twin wells and pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E) are located on Ute Indian Reservation land about one to 3 miles south and about a quarter of a mile to five miles west of the White River and some 15 to 20 miles southeast of Ouray, Utah. The project area can be found on the Ouray SE and Red Wash SW 7.5 minute U. S. Geological Survey Quadrangle Maps, Uintah County, Utah.

### PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

### GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt, and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt, and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleomagnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

### FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

### PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

### NBU #921-10CT, 10B4S, 10D2S & 10G2S

The proposed pipeline begins in the SE/NW quarter-quarter section of Sec. 10, T 9 S, R 21 E and parallels an existing road for approximately 0.2 mile to terminate at the multi-well pad located in the NW/NW quarter-quarter section (Figure 1). The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed in some areas. Undisturbed ground is covered in vegetated colluvium. A large outcrop of variegated green and maroon siltstone was observed just west of the existing well pad. A small unidentifiable turtle scatter was found just outside of the proposed area among the said outcrop but no other fossils were discovered.

### NBU #921-11GT

The proposed twin well pad is located on the existing well site "NBU 316" situated in the SW/NE quarter-quarter section of Sec 11, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

### **NBU #921-11HT**

The proposed twin well pad is located on the existing well site "NBU 315" situated in the SE/NE quarter-quarter section of Sec. 11, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

### NBU #921-12AT

The proposed twin well pad is located on the existing well site "NBU 376" situated in the NE/NE quarter-quarter section of Sec. 12, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

### NBU #921-12DT

The proposed twin well pad is located on the existing well site "NBU 418" situated in the NW/NW quarter-quarter section on Sec. 12, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on atop a hill on relatively flat ground that has been previously disturbed. Undisturbed ground is covered primarily in vegetated colluvium and bordered along the east side of the pad by a purple siltstone outcrop showing inter-fingering of the Myton Member (Uinta C) of the Uinta Formation. No fossils were found.

### NBU #921-13CT, 13G2S, 13D4S & 13B2S

The proposed pipeline begins in the SW/NW quarter-quarter section of Sec. 18, T 9 S, R 22 E and parallels and existing road for approximately 0.9 mile until terminating at the proposed mutiwell pad located at the existing well site "CIGE 274" in the NE/NW quarter-quarter section of Sec. 13, T 9 S, R 21 E (Figure 2). The proposed pipeline is staked on colluvium and modern eolian deposits. The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

### NBU #921-15MT

The proposed twin well pad is located on the existing well site "NBU 191" in the SW/SW quarter-quarter section of Sec. 15, T 9 S, R 21 E (Figure 1). The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium and modern eolian deposits with no visible outcrop. Just outside of the northeast corner a small turtle scatter was found.

### NBU #921-20IT

The proposed twin well pad is located on the existing well site "NBU 70" in the NE/SE quarter-quarter section of Sec. 20, T 9 S, R 21 E (Figure 1). The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium. A large outcrop of purple siltstone and gray, cobble-sized sandstone was observed along the northern side of the pad. Two large turtle scatters were found among the purple siltstone outcrop.

### **SURVEY RESULTS**

PROJECT	GEOLOGY	PALEONTOLOGY
"NBU #921- 10CT, 10B4S, 10D2S & 10G2S" (Sec. 10, T 9 S, R 21 E)	The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed in some areas. Undisturbed ground is covered in vegetated colluvium. A large outcrop of variegated green and maroon siltstone was observed just west of the existing well pad.	A small unidentifiable turtle scatter was found just outside of the proposed area among the said outcrop but no other fossils were discovered.  Class 3a
"NBU #921- 11GT" (Sec. 11, T 9 S, R 21 E)	The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. Class 3a
"NBU #921- 11HT" (Sec. 11, T 9 S, R 21 E)	The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. Class 3a
"NBU #921- 12AT" (Sec. 12, T 9 S, R 21 E)	The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. Class 3a
"NBU #921- 12DT" (Sec. 12, T 9 S, R 21 E)	The proposed well pad is staked on atop a hill on relatively flat ground that has been previously disturbed. Undisturbed ground is covered primarily in vegetated colluvium and bordered along the east side of the pad by a purple siltstone outcrop showing inter-fingering of the Myton Member (Uinta C) of the Uinta Formation.	No fossils were found. Class 3a
"NBU #921- 13CT, 13G2S, 13D4S & 13B2S" (Sec. 13, T 9 S, R 21 E)	The proposed pipeline is staked on colluvium and modern eolian deposits. The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. Class 3a

"NBU #921- 15MT" (Sec. 15, T 9 S, R 21 E)	The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium and modern eolian deposits with no visible outcrop.	Just outside of the northeast corner a small turtle scatter was found.  Class 3a
"NBU #921- 20IT" (Sec. 20, T 9 S, R 21 E)	The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium. A large outcrop of purple siltstone and gray, cobble-sized sandstone was observed along the northern side of the pad.	Two large turtle scatters were found among the purple siltstone outcrop.  Class 3a

### RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed twin wells and pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E). The twin wells and pipelines covered in this report showed little to no signs of vertebrate fossils inside the proposed construction areas although a few fossils were found on the edges of the project areas. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formational sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, recommendations are that a paleontologist is immediately notified in order to collect fossil materials in danger of being destroyed. Any vertebrate fossils found should be carefully moved outside of the construction areas to be check by a permitted paleontologist.

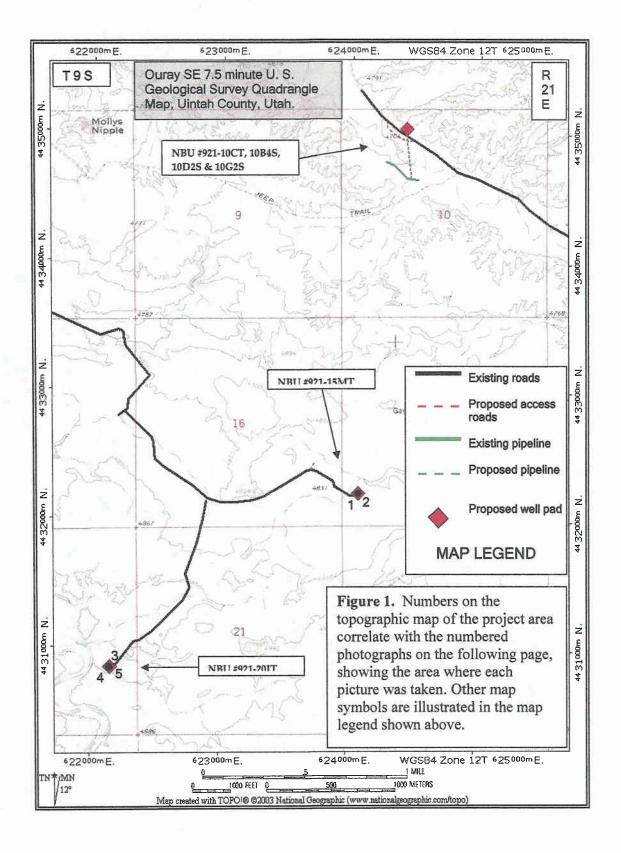
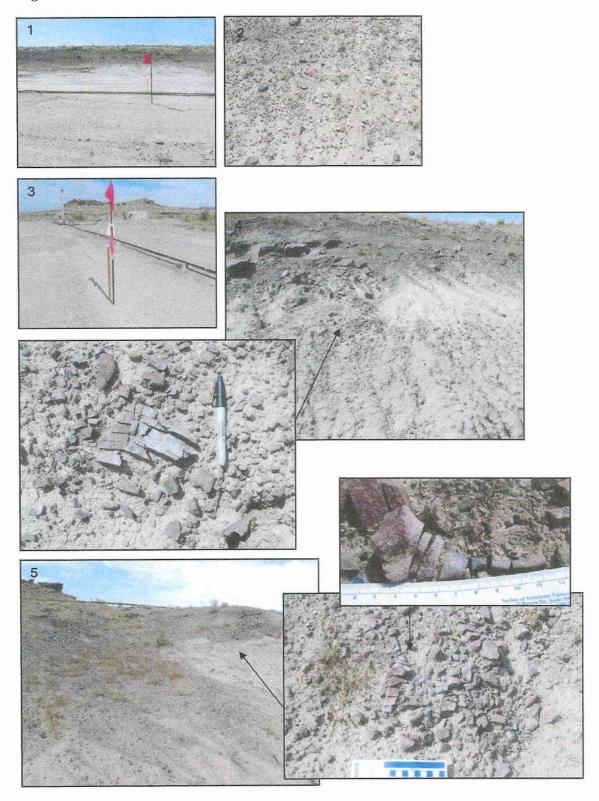


Figure 1. continued...



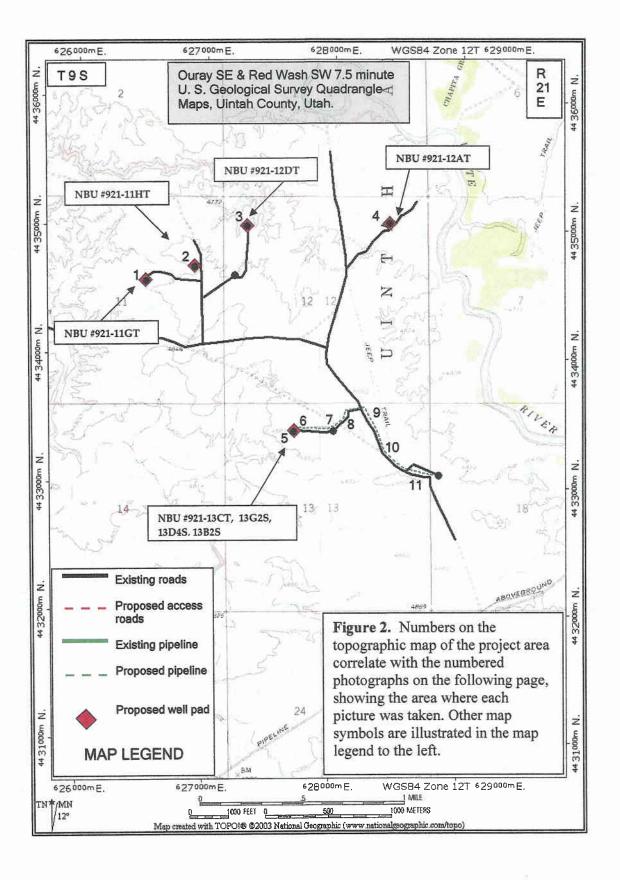


Figure 2. continued...



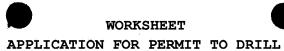
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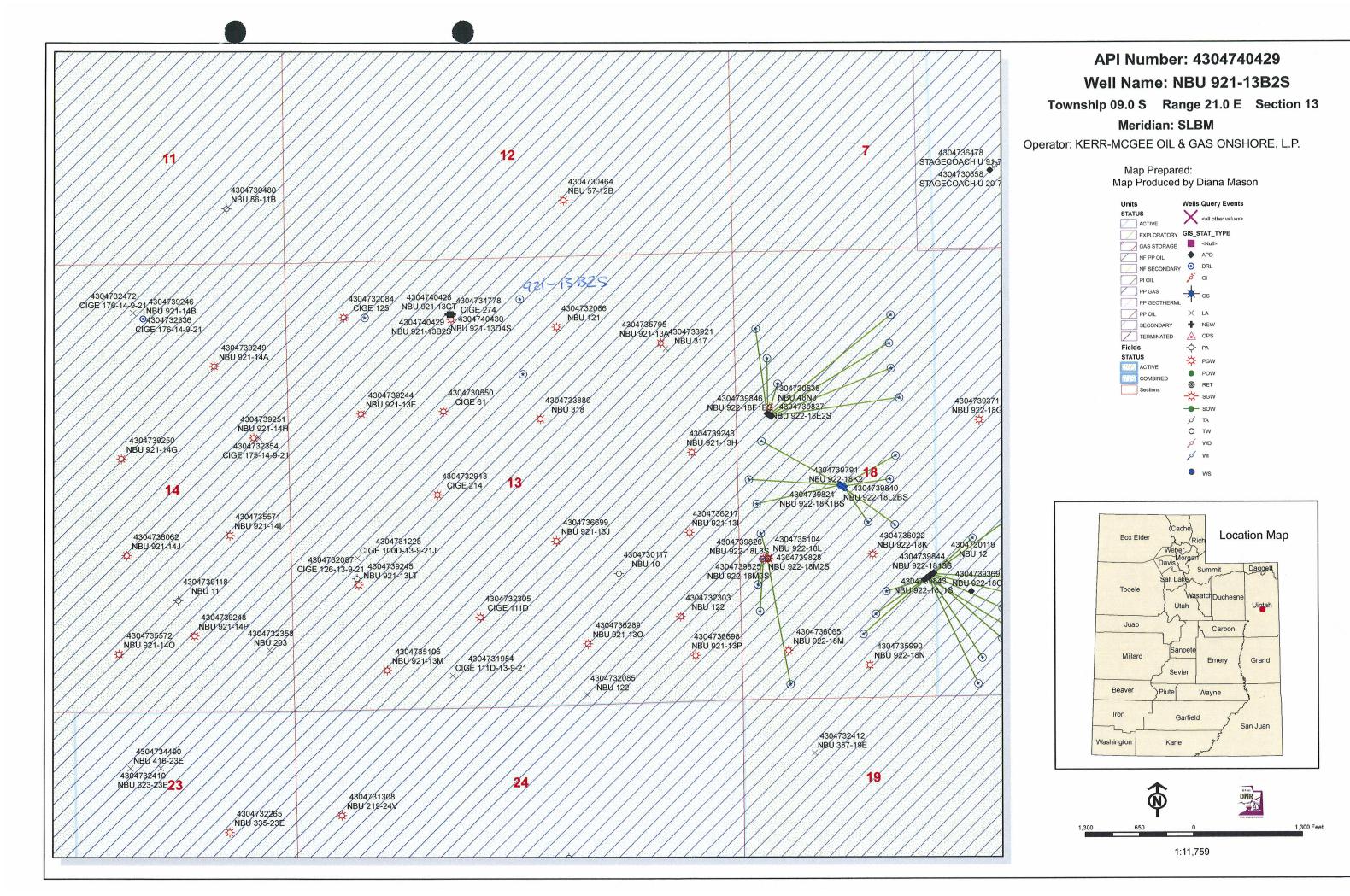
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## **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

December 5, 2008

#### Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2008 Plan of Development Natural Buttes Unit Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WE]	LL NAME				LOCA'	rion			
(Proposed PZ	Wasa	atch/MesaVe	rde)							
43-047-40444	NBU	921-10G4S BHL	Sec Sec			R21E R21E				
43-047-40445	NBU	921-10F2S BHL				R21E R21E				
43-047-40446	NBU	921-10E3S BHL				R21E R21E				
43-047-40447	NBU	921-10F3T	Sec	10	T09S	R21E	1897	FNL	1928	FWL
43-047-40448	NBU	922-29D1T	Sec	29	T09S	R22E	0571	FNL	1009	FWL
43-047-40423	NBU	921-10CT	Sec	10	T09S	R21E	0811	FNL	1792	FWL
43-047-40428	NBU	921-13CT	Sec	13	T09S	R21E	0655	FNL	1920	FWL
43-047-40435	NBU	1022-3B4T	Sec	03	T10S	R22E	1022	FNL	1751	FEL
43-047-40434	NBU	1022-2A2T	Sec	02	T10S	R22E	0203	FNL	0896	FEL
43-047-40424	NBU	921-10G2S BHL				R21E R21E				
43-047-40425	NBU	921-10D2S	Sec	10	T09S	R21E	0799	FNL	1776	FWL

BHL Sec 10 T09S R21E 0543 FNL 0648 FWL

Page 2

43-047-40426	NBU	921-10B4S BHL			T09S T09S	R21E R21E	0823 0705		1808 1929	FWL FEL
43-047-40427	NBU	921-13G2S BHL			T09S T09S	R21E R21E	0655 1372			FWL FEL
43-047-40429	NBU	921-13B2S BHL	Sec Sec		T09S T09S		0655 0488		1960 2541	FWL FEL
43-047-40430	NBU	921-13D4S BHL				R21E R21E				FWL FWL
43-047-40431	NBU	1022-2B2S BHL	Sec Sec	-	T10S T10S		0202 0065	FNL FNL	0916 2075	FEL FEL
43-047-40432	NBÜ	1022-2A3S BHL			T10S T10S	R22E R22E			0857 0820	FEL FEL
43-047-40433	NBU	1022-2A4S BHL	Sec Sec		T10S T10S		0207 1175	FNL FNL	0836 0315	FEL FEL
43-047-40436	NBÚ	1022-3A3S BHL			T10S T10S	R22E R22E			1734 0822	
43-047-40437	NBU	1022-3C1S BHL			T10S T10S		1040 0380	FNL FNL	1787 2354	FEL FWL
43-047-40438	NBU	1022-3B2S BHL			T10S T10S	R22E R22E			1769 2516	FEL FEL
43-047-40439	NBU					R22E R22E				FEL FEL
43-047-40440	NBU					R22E R22E				FEL FEL
43-047-40441	NBU		Sec Sec				1768 1900		1502 2025	FEL FEL
43-047-40442	NBU					R22E R22E			1443 1955	FEL FEL
43-047-40443	NBU					R22E R22E	1765 2250		1482 2065	

This office has no objection to permitting the wells at this time.

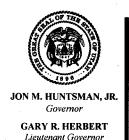
/s/ Michael L. Coulthard

occ: File – Natural Buttes Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:12-5-08



# State of Utah DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

Division Director

December 8, 2008

Kerr-McGee Oil & Gas Onshore, LP P O Box 173779 Denver, CO 80217-3779

Re:

NBU 921-13B2S Well, Surface Location 655' FNL, 1960' FWL, NE NW, Sec. 13,

T. 9 South, R. 21 East, Bottom Location 488' FNL, 2541' FEL, NW NE, Sec. 13,

T. 9 South, R. 21 East, Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40429.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

**Uintah County Assessor** 

Bureau of Land Management, Vernal Office



Operator: Kerr-McGee Oil & Gas Onshore, LP					
Well Name & Number	NBU 9	NBU 921-13B2S			
API Number:	43-047				
Lease:	UTU-0	1193			
Surface Location: NE NW Bottom Location: NW NE	Sec. 13 Sec. 13	<b>T.</b> 9 South <b>T.</b> 9 South	<b>R.</b> 21 East <b>R.</b> 21 East		

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division with 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
- 6 In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

	FORM 9		
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01193		
SUNDF	RY NOTICES AND REPORTS O	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	sals to drill new wells, significantly deepen e gged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-13B2S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047404290000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0655 FNL 1960 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 13	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
11/30/2009	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee Oil & Ga extension to this A	MPLETED OPERATIONS. Clearly show all pertings Onshore, L.P. (Kerr-McGee) PD for the maximum time allow with any questions and/or comm	respectfully requests an ved. Please contact the ments. Thank you.	Approved by the Utah Division of Oil, Gas and Mining  ate: November 30, 2009  y:
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE	\50 A5A-0120	DATE	
N/A		11/24/2009	



Sig

#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047404290000

**API:** 43047404290000 **Well Name:** NBU 921-13B2S

Location: 0655 FNL 1960 FWL QTR NENW SEC 13 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 12/8/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

ire revi	sion. Following is a	checklist of s	ome items related	to the applicat	tion, which	n should be verifi	ed.
	ated on private land ed? 问 Yes 📵 N		ership changed, if	so, has the su	rface agre	ement been	
	any wells been dril requirements for t			l well which w	ould affec	ct the spacing or	
	here been any unit s proposed well?			that could aff	ect the pe	ermitting or opera	ition
	there been any cha the proposed locat			g ownership,	or rightof	- way, which coul	d
• Has th	he approved source	of water for d	Irilling changed? (	Yes 🗓 N	lo		
	there been any phy je in plans from wh						
• Is bor	nding still in place,	which covers t	this proposed well?	' 📵 Yes 🗍	No Utal	roved by the h Division of as and Mining	
nature:	Danielle Piernot	Date:	11/24/2009				
Title:	Regulatory Analyst I	Representing:	KERR-MCGEE OIL &	GAS ONSHOR	ate:l	November 30, 200	19

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE:	_	FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01193		
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	sals to drill new wells, significantly deepen ougged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-13B2S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047404290000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	<b>PHON</b> Street, Suite 600, Denver, CO, 80217 3779	<b>TE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0655 FNL 1960 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENW Section: 13	IP, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S	5	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
_	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
12/8/2010	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	☐ DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	☐ PLUG AND ABANDON	PLUG BACK
_	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	□ WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee Oil & G extension to this A	OMPLETED OPERATIONS. Clearly show all pertical Solutions. Clearly show all pertical Company (Note of the Maximum time allowith any questions and/or company (Note of the Company Company).	respectfully requests an wed. Please contact the	Approved by the Utah Division of Oil, Gas and Mining
		D	ate: 12/13/2010
		В	y: Ballyll
			20
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE		DATE 12/8/2010	
N/A			· · · · · · · · · · · · · · · · · · ·



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047404290000

**API:** 43047404290000 **Well Name:** NBU 921-13B2S

Location: 0655 FNL 1960 FWL QTR NENW SEC 13 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued: 12/8/2008** 

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

require revi	sion. Following is a che	ecklist of some	items related to	the application	on, which should be verified.
	ated on private land, he ed? 🔲 Yes 📵 No	as the ownersh	nip changed, if so	o, has the surf	ace agreement been
	any wells been drilled requirements for this			well which wo	uld affect the spacing or
	nere been any unit or o s proposed well?		nts put in place t	hat could affe	ct the permitting or operation
	there been any change the proposed location			ownership, o	r rightof- way, which could
• Has th	ne approved source of	water for drilli	ng changed? 🔵	Yes 📵 No	
	there been any physica le in plans from what v				oute which will require a Yes 📵 No
• Is bor	nding still in place, whi	ch covers this	proposed well?	Yes	Approved by the No Utah Division of Oil, Gas and Mining
Signature:	Danielle Piernot	<b>Date:</b> 12/	8/2010		12/13/2010
Title:	Regulatory Analyst <b>Rep</b>	resenting: KEF	RR-MCGEE OIL & G	as onshor <b>!</b> ₽	L nacill

Sundry Number: 20700 API Well Number: 43047404290000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01193		
SUNDF	RY NOTICES AND REPORTS	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepe igged wells, or to drill horizontal laterals.	en existing wells below current Use APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-13B2S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43047404290000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PH treet, Suite 600, Denver, CO, 80217 377	<b>IONE NUMBER:</b> 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0655 FNL 1960 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian	n: S	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Kerr-McGee Oil & G extension to this A	□ ACIDIZE □ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION  MPLETED OPERATIONS. Clearly show all p as Onshore, L.P. (Kerr-McGe. PD for the maximum time all with any questions and/or constitutions)	ee) respectfully requests an llowed. Please contact the omments. Thank you.	•
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER	R TITLE Regulatory Analyst	
SIGNATURE N/A	720 929-6156	DATE 11/29/2011	

Sundry Number: 20700 API Well Number: 43047404290000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047404290000

**API:** 43047404290000 **Well Name:** NBU 921-13B2S

Location: 0655 FNL 1960 FWL QTR NENW SEC 13 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued: 12/8/2008** 

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No</li> </ul>
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes </li> <li>No</li> </ul>
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No

**Signature:** Danielle Piernot **Date:** 11/29/2011

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 32371 API Well Number: 43047404290000

	STATE OF UTAH		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01193		
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	oposals to drill new wells, significantly done reenter plugged wells, or to drill horizont on for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-13B2S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047404290000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0655 FNL 1960 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 13 Township: 09.0S Range: 21.0E Meridi	an: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Kerr-McGee Oil & G an extension to this	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show all sas Onshore, L.P. (Kerr-McGeolary Completed Compl	e) respectfully requests llowed. Please contact	Approved by the
NAME (PLEASE PRINT)	PHONE NUMBE	R TITLE	
Luke Urban	720 929-6501	Regulatory Specialist	
SIGNATURE N/A		<b>DATE</b> 11/26/2012	

Sundry Number: 32371 API Well Number: 43047404290000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047404290000

API: 43047404290000 Well Name: NBU 921-13B2S

Location: 0655 FNL 1960 FWL QTR NENW SEC 13 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 12/8/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

···
• If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of the proposed well?</li> <li>Yes</li> <li>No</li> </ul>
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ( Yes ( No
• Has the approved source of water for drilling changed? 🔘 Yes 📵 No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well? 📵 Yes 🔘 No
nature: Luke Urban Date: 11/26/2012

Sig

Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.



### **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT Green River District Vernal Field Office 170 South 500 East Vernal, UT 84078 http://www.blm.gov/ut/st/en/fo/vernal.html



April 1, 2013

IN REPLY REFER TO: 3160 (UTG011)

Julie Jacobson Kerr McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779

43 047 40429

Re: Request to Return APD Well No. NBU 921-13B2S NENW, Sec. 13, T9S, R21E Uintah County, Utah Lease No. UTU-01193 Natural Buttes Unit

#### Dear Julie:

The Application for Permit to Drill (APD) for the above referenced well received in this office on December 3, 2008, is being returned unapproved per your request to this office in an email message to Natural Resource Specialist Tyler Cox received on March 7, 2013. If you intend to drill at this location at a future date, a new APD must be submitted.

If you have any questions regarding APD processing, please contact Robin R. Hansen at (435) 781-3428.

Sincerely,

/s/ Jerry Kenczka

Jerry Kenczka
Assistant Field Manager
Lands & Resource Minerals

**Enclosures** 

CC:

**UDOGM** 

bcc:

Well File

RECEIVED

MAY 0 1 2013

DIV. OF OIL, CAS & MINING



# State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

Division Director

February 12, 2014

Kerr-McGee Oil & Gas Onshore, LP P.O. Box 173779 **Denver, CO 80217** 

43 047 40429 NBU 921-13B2S

Re:

APDs Rescinded for Kerr-McGee O&G Onshore, L.P., Uintah County

#### Ladies and Gentlemen:

Enclosed find the list of APDs that is being rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective February 12, 2014.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely

Environmental Scientist

cc:

Well File

Bureau of Land Management, Vernal



43-047-40423	NBU 921-10CT	
43-047-40424	NBU 921-10G2S	
43-047-40425	NBU 921-10D2S	
43-047-40426	NBU 921-10B4S	
43-047-40427	NBU 921-13G2S	
43-047-40428	NBU 921-13CT	
<del></del> 43-047-40429	NBU 921-13B2S	
43-047-40430	NRU 921-13D4S	